



Evansville Water & Light Department

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January 28, 2003

Mr. Scot Cullen, Chief Electric Engineer
Public Service Commission
610 N. Whitney Way
P.O. Box 7854
Madison, WI 53707-7854

RE: In the Matter of Filing Reporting Requirements for Appropriate Inspection and Maintenance, PSC Rule 113.0607(6)

Dear Mr. Cullen:

Enclosed for filing are 3 copies of Evansville Water & Light Department's report to the commission, submitted every two years, showing compliance with its Preventative Maintenance Plan.

Very truly yours,

John Rasmussen
Line Foreman

Enclosures

RECEIVED

JAN 30 2003

Electric Division

**TWO YEAR REPORT DOCUMENTING
COMPLIANCE WITH THE
PREVENTATIVE MAINTENANCE PLAN**

Evansville Water & Light Department

**FILING DEADLINE
FEBRUARY 1, 2003**

January 17, 2003

John Rasmussen

31 S. Madison Street

Evansville, WI 53536

(608) 882-2288

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Electric Division

I Reporting Requirements: PSC 113.0607(6) states;

Each utility shall provide a periodic report to the commission showing compliance with its Preventative Maintenance Plan. The report shall include a list of inspected circuits and facilities, the condition of facilities according to established rating criteria, schedules established and success at meeting the established schedules.

II Inspection Schedule and Methods:

SCHEDULE:	MONTHLY	ANNUAL	EVERY 5 YEARS
Transmission ($\geq 69\text{Kv}$)			
Substations	X	X	
Distribution (OH & UG)			X

METHODS: Five criteria groups will be used to complete the inspection of all facilities.

1. IR – infrared thermography used to find poor electrical connections and/or oil flow problems in equipment.
2. RFI - Radio Frequency Interference, a byproduct of loose hardware and connections, is checked using an AM radio receiver.
3. SI – structural integrity of all supporting hardware including poles, crossarms, insulators, structures, bases, foundations, buildings, etc.
4. Clearance – refers to proper spacing of conductors from other objects, trees and conductors.
5. EC – equipment condition on non-structural components such as circuit breakers, transformers, regulators, reclosers, relays, batteries, capacitors, etc.

Distribution facilities will be inspected by substation circuits on a 5-year cycle such that the entire system will be inspected every 5 years. Inspector instructions for inspecting all facilities and forms are included in the plan.

III Condition Rating Criteria

This criterion, as listed below, establishes the condition of a facility and also determines the repair schedule to correct deficiencies.

- 0) Good condition
- 1) Good condition but aging
- 2) Non-critical maintenance required – normally repair within 12 months
- 3) Priority maintenance required – normally repair within 90 days
- 4) Urgent maintenance required – report immediately to the utility and repair normally within 1 week

IV Corrective Action Schedule

The rating criteria as listed above determine the corrective action schedule.

V Record Keeping

All inspection forms and records will be retained for a minimum of 10 years. The inspection form contains all of the required critical information i.e. inspection dates, condition rating, schedule for repair and date of repair completion.

VI Reporting Requirements

A report and summary of this plan's progress will be submitted every two years with the first report due to the Commission by February 1, 2003. The report will consist of a cover letter documenting the percent of inspections achieved compared to the schedule and the percent of maintenance achieved within the scheduled time allowance.

VII Inspected Circuits and Facilities

Circuit # and description	Substation
West Feeder	West
	Center
	East

Base load and peaking generation, less than 50 megawatts per unit in size, is typically subject to pre-operational checks, in addition to checks and maintenance during and after periods of operation. Emergency generation is test run and maintained every *(type in a period of time not exceeding one month)* to confirm its operational readiness.

VIII Scheduling Goals Established and Success of Meeting the Criteria:

:

It was this utility's goal to complete all monthly substation inspections, annual transmission line inspections and to inspect 33% of our overhead distribution system and 25% of our URD system per year. In addition we expect to complete all maintenance from the inspections within the prescribed time periods specified in the rating criteria.

The inspection goals for our overhead distribution have been met, only ½ of our URD inspections have been met. We intend on finishing our

URD inspection by late summer. We met 80 % of our monthly substation inspections.

IX Facility condition – rating criteria:

During the past four years we have completed a multi-year system upgrade plan to loop the city and improve system reliability. We are currently working with our Engineer on the next phases of our ongoing upgrade and maintenance of our system. During the last two years we started an ongoing tree-trimming program. With our tree trimming program, rebuilding, and maintained we have reduced our outages by 75%.

WRD Equipment Inspection Report

Date: _____

Inspected By: _____

Inside Observations

Elbow/Cable Related

- _____ Swollen Elbows
- _____ Elbows Not Seated Properly
- _____ Grd Rod Pushed Up Into Pri
- _____ Hot Elbow or Cable
- _____ No Cable ID Tag
- _____ Other

LOCATION _____

SERIAL # _____

KVA _____ PHASE _____

Animal or Insect Related

- _____ Dirt Buildup in Cabinet
- _____ Rodent Damaged Cable
- _____ Animal Nest in Cabinet
- _____ Animal in Cabinet
- _____ Other

Secondary Related

- _____ Secondary Not Covered
- _____ Cable Exposed
- _____ Bushing Bent or Rusted
- _____ Other

Outside Observations

- _____ Oil Leaks
- _____ Needs Leveling or Raise/Lower
- _____ Needs Protective Posts
- _____ Lock or Penta Bolt Problem
- _____ Pad Fit Problem
- _____ Erosion or Pad Damage Problem
- _____ Clearance Problem
- _____ Needs to be Painted
- _____ Needs Proper Warning Stickers
- _____ Broken Hinge
- _____ Rust or Knock-Out Holes

Grounding Related

- _____ Cracked Neutral Bar
- _____ Neutral Rubbing Cabinet
- _____ >Ohm Resistance
- _____ Hot Grounding Connection
- _____ Broken Ground Wire
- _____ Ground Rod Pushed Up
- _____ Not Grounded to Transformer
- _____ Other

Comments: _____

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Date Repairs Made _____

Repaired By _____